## REMARKS

This is in response to the Office Action dated October 26, 2009. Claims 1, 4, 6-29 and 32-33 are pending. Claims 1, 4, 6-12, 15-29 and 32-33 stand rejected in the outstanding Office Action. Claims 13 and 14 are withdrawn. Claims 1, 4, 9, 11, 29 and 32 have been amended. Claims 2-3, 5 and 30-31 have been cancelled.

The objection to claims 13 and 14 for informalities is respectfully traversed. Said claims have been identified as being withdrawn to overcome the Examiner's objection.

The rejection of independent claims 1, 9, 29 and 32 as allegedly being anticipated under 35 U.S.C. § 102(e) by Lee et al. (US 7,154,569) is respectfully traversed. Lee fails to disclose or even remotely suggest each and every limitation set forth in the claims. Anticipation requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference", *Verdegaal Bro. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (MPEP § 2131).

Amended claim 1 (similarly for claims 9, 29 and 32) now recites "the storage capacitance line includes at least one line stem extending generally parallel to the scanning line and a line branch branched from the at least one line stem, and the storage electrode includes at least one electrode stem opposing the at least one line stem with the first insulating layer interposed therebetween and an electrode branch branched from the at least one electrode stem". Said limitation is recited in previously presented claim 6. Lee fails to teach or suggest this feature.

Lee discloses an LCD (Figs. 2, 5A, 5B) comprising a first substrate 100, a second substrate 200, with a liquid crystal layer 3 disposed therebetween. The LCD panel includes a plurality of pixel electrodes 190 formed on substrate 100. Each pixel electrode has a plurality of X-shaped cutouts 191 and a plurality of linear cutouts 192 (col. 11, line 63 to col. 12, line 4).

Moreover, the X-shaped cutouts 191 overlap portions of a direction control electrode 178, while the linear cutouts 192 of the pixel electrode 190 overlap branches 133c and 133d of the storage electrode 131 (Fig. 5B, col. 12, lines 4-8, col. 9, line 62 to col. 10, line 10). The storage electrode 131 along with the pixel electrode 190 forms a storage capacitor $C_{ST}$, which is connected in parallel with the liquid crystal capacitor $C_{LC}$ (Fig. 4).

Regarding claims 1, 9, 29 and 32, the Examiner identified 133c as the claimed storage capacitance line, identified 190 as the solid area of the claimed picture element electrode, 192 as the claimed area where no solid area of the picture element electrode is provided, and stated that electrode 133c is located under area 192 but not under area 190 (see Fig. 5B).

Regarding the feature of the storage capacitance line including at least one stem (recited in claim 6), the Examiner cited Shimada for the feature admittedly missing from Lee.

Shimada discloses an LCD device (Fig. 1A), wherein a connecting electrode 16 in the middle of the picture element area 12a, connecting the drain electrode 112 to the picture element electrode 12, has a stem extending parallel to the scanning line 13. According to Shimada, the connecting electrode 16 and a common line 125 form a storage capacitor. A part of the connecting electrode 16 overlapping the common line 125 acts as an upper electrode 16a of the storage capacitor, and a part of the common line 125 overlapping the connecting electrode 16 acts as a lower electrode 125a of the storage capacitor (col. 11, lines 32-54).

The Examiner identified 16 as the claimed storage capacitance that is branched forming along "storage capacitance line" 125a the storage capacitor (see p. 12 of the Office Action).

However, Applicant submits that in Fig. 1A of Shimada, the storage capacitor only extends along a linear direction parallel to the scanning line, where a section of the connecting electrode 16 overlaps with the common line 125. In other words, the storage capacitance line

does not include a stem and a branch connected to the branch. The section of electrode 16 that extends from the main section parallel to the scanning line does not overlap with any other electrode to form a capacitor.

Moreover, in the LCD device of Lee, the storage electrode 133 and the pixel electrode 190 form the storage capacitor $C_{ST}$ (col. 5, lines 29-32). On the other hand, in the LCD device of the invention of claim 1, the storage capacitance line and the storage electrode opposing the storage capacitance line and electrically connected to the drain electrode of the thin film transistor form the storage capacitance, as specifically defined in claim 3 (now incorporated to claim 1). That is, unlike the storage capacitance of the LCD device according to the invention of claim 1, the storage capacitor $C_{ST}$ of the LCD device of Lee includes the pixel electrode 190. Therefore, a portion of the third branch 133c which overlaps with the linear cutouts 192 (a part of the pixel electrode 190 in which a conducting film is not formed) cannot constitute the storage capacitor $C_{ST}$. Accordingly, Lee fails to disclose or suggest "at least a part of the storage capacitance is located in the area of the first substrate where no solid area is provided", as required by claim 1.

For the above reasons, claim 1 is allowable. Claims 6, 9, 29 and 32 include limitations similar to those of claim 1 and are also allowable.

Regarding claim 28 reciting that the liquid crystal domain takes a spiral radially-inclined orientation, the Examiner Song (e.g., Fig. 13), as allegedly teaching this feature admittedly missing in Lee.

However, Song does not disclose the "spiral radially-inclined orientation" or the "radially-inclined orientation". In the LCD device of Song, the liquid crystal molecules are oriented not in a radially-inclined manner (i.e., substantially all directions) but in four directions.

For at least the above reason, claim 28 is allowable.

It is respectfully requested that the rejection of claims 4, 7-8, 10-12, 15-28 and 33, each being dependent from claim 1 or 6 or 9 or 32, also be withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: /Leonidas Boutsikaris/
Leonidas Boutsikaris
Reg. No. 61,377

LB:tlm
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100